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Publications

The following publications relate to all work carried out at LANSCE and reported since the 1999–2000 LANSCE Activity Report (LA-13865-PR) was published. Work performed elsewhere by LANSCE staff is included where relevant. This list does not include publications submitted or in press as of December 2001.

Publications are an important “product” of LANSCE and a valuable metric to our sponsors and review boards. All facility users are requested to send complete references of all publications resulting from experimental work conducted utilizing LANSCE resources, in whole or in part, to the User Office.

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Accelerator Science

ALLEN, C. K., “Investigation of Halo Formation in Continuous Beams Using Weighted Polynomial Expansions and Perturbational Analysis,” in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **1**, 297–299.

ATENCIO, S. J., CAMPBELL, B. M., CHAN, K. D., CIMABUE, A. G., CLARK, W. L., ELLIS, G. G., GENTZLINGER, R. C., HAAGENSTAD, H., HAMMON, D. L., HAYNES, W. B., KELLEY, J. P., KRAWCZYK, F. L., MANZO, M. P., MARTINEZ, F. A., MARTINEZ, H. J., MCCLELLAND, J. B., MITCHELL, J. C., MITCHELL, R. R., MONTOYA, D. I., MONTOYA, D. R., MOSS, J. M., QUINTANA, S. W., RENDON, A. M., RUSNAK, B., SCHRAGE, D. L., and KUZMINSKI, J., “Design, Analysis, and Fabrication of APT Cavities,” in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) **2**, 965–967.

BARR, D. S., DAY, L. A., GILPATRICK, J. D., KASEMIR, K., MARTINEZ, D. G., POWER, J. F., SHURTER, R. B., and STETTLER, M. W., “LEDA Beam Diagnostics Instrumentation: Beam-Current Measurement,” in *Proceedings of the Beam Instrumentation Workshop 2000* (AIP, 2000) **546**, 242–250.

BARR, D. S., DAY, L. A., GILPATRICK, J. D., KASEMIR, K., MARTINEZ, D. G., POWER, J. F., SHURTER, R. B., and STETTLER, M. W., “LEDA Beam Diagnostics Instrumentation: Beam-Position Monitors,” in *Proceedings of the Beam Instrumentation Workshop 2000* (AIP, 2000) **546**, 322–329.

BOLME, G. O., HANSBOROUGH, L. D., HARDEK, T. W., HODGKINS, D. J., KERSTIENS, D. M., MEYER, E. A., SCHNEIDER, J. D., SHERMAN, J. D., SMITH, H. V., STETTLER, M. W., STEVENS, R. R., THUOT, M. E., YOUNG, L. M., ZAUGG, T. J., ARVIN, A. H., BOLT, A. S., RICHARDS, M. C., BALLEYGUIER, P. D., and KAMPERSCHROER, J., “Half-Power Test of a CW Proton Injector with a 1.25-MeV RFQ,” in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) 1946–1948.

BOURQUE, R. F., GIOIA, J. G., KUZMINSKI, J., RICHIED, D., TOOKER, J. F., CAMPBELL, B. M., and CHAN, K. D., “The APT SCRF Cryomodule: Present Status and Potential Future Plans,” in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) **4**, 2954–2956.

BOWMAN, D. W., BALLARD, E. O., BARR, G. W., COCHRANE, J. C., DAVIS, H. A., GRIBBLE, R. F., GRIEGO, J. R., HINCKLEY, W. B., NIELSEN, K. E., PARKER, J. V., PARSONS, W. M., RICKETTS, R. L., SALAZAR, H. R., SCUDDER, D. W., THOMPSON, M. C., TRAINOR, R. J., VALDEZ, G. A., VIGIL, B. N., WAGANAAR, W. J., WATT, R. G., and WYSOCKI, F. J., “The Atlas Pulsed-Power Facility for High-Energy Density Physics Experiments,” in *Proceedings of the 12th Pulsed Power Plasma Science Conference* (IEEE, 1999) 484–488.

Publications

BOWMAN, D. W., BALLARD, E. O., BARR, G. W., COCHRANE, J. C., DAVIS, T. O., DAVIS, H. A., GRIBBLE, R. F., GRIEGO, J. R., HOOD, M. E., NEY, S. A., NIELSEN, K. E., PARSONS, W. M., RICKETTS, R. L., SALAZAR, H. R., SCUDDER, D. W., THOMPSON, M. C., TRAINOR, R. J., and VALDEZ, G. A., "An Overview of the Mechanical Design of the Atlas Pulsed-Power Machine," in *Proceedings of the 12th Pulsed-Power Plasma Science Conference* (IEEE, 1999) 933–936.

BROWN, D. J. and STRINGFIELD, R., "Iterative Methods Applied to Matrix Equations Found in Calculating Spheroidal Functions," *Journal of Computational Physics* **159**, 329–343 (2000).

CHAN, K. C. D., KUZMINSKI, J., GAUTIER, D. C., GENTZLINGER, R. C., GIOIA, J. G., HAYNES, W. B., KATONAK, D. J., KELLEY, J. P., KRAWCZYK, F. L., MADRID, M. A., MITCHELL, R. R., MONTOYA, D. I., CAMPBELL, B. M., WAYNERT, J. A., SCHMIERER, E. N., SHAPIRO, A. H., and MAMMOSSER, J., "Status of Superconducting RF Linac Development for APT," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **2**, 947–949.

COCHRANE, J. C., REASS, W. A., and PARSONS, W. M., "High-Energy, Low-Inductance, High-Current Fiberglass Energy Storage Capacitor for the Atlas Machine Marx Modules," in *Proceedings of the 12th Pulsed-Power Plasma Science Conference* (IEEE, 1999) 122–125.

DANILOV, V., GALAMBOS, J. D., JEON, D., HOLMES, J. A., OLSEN, D., FITZGERALD, D. H., MACEK, R. J., and PLUM, M. A., "An Integrable Optics Lens for the PSR and SNS," in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) 1198–1200.

DANILOV, V., GALAMBOS, J. D., JEON, D., HOLMES, J. A., OLSEN, D., FITZGERALD, D. H., MACEK, R. J., PLUM, M. A., and GRIFFIN, J. E., "A Study on the Possibility to Increase the PSR e-p Instability Threshold," in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) 1201–1203.

DAVIS, H. A., BALLARD, E. O., GRIBBLE, R. F., NIELSEN, K. E., PARKER, J. V., and PARSONS, W. M., "The Atlas Power-Flow System—A Status Report," in *Proceedings of the Transactions on Plasma Science* (IEEE, 2000) **28**, 5.

DAVIS, H. A., BALLARD, E. O., GRIBBLE, R. F., NIELSEN, K. E., PIERCE, D., and PARSONS, W. M., "The Atlas Load Protection Switch," in *Proceedings of the 12th Pulsed-Power Plasma Science Conference* (IEEE, 1999) 941–944.

DAY, L. A., PIECK, M., BARR, D. S., KASEMIR, K., QUINTANA, B. A., and STETTLER, M. W., "Control System for the LEDA 6.7-MeV Proton Beam Halo Experiment," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **1**, 527–530.

FITZGERALD, D. H., GARNETT, R. W., JONES, K. W., MERRILL, F. E., PILLAI, C., PLUM, M. A., SANDER, O. R., BROWMAN, A., and KUSTOM, R. L., "Commissioning of the Los Alamos PSR Injection Upgrade," in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) 518–520.

GALAMBOS, J. D., DANILOV, V., JEON, D., HOLMES, J. A., OLSEN, D., NERI, F., and PLUM, M. A., "Comparison of Simulated and Observed Beam Profile Broadening in the PSR and the Role of Space Charge," *Physical Review Special Topics —Accelerators and Beams* **3**, 034201 (2000).

GILPATRICK, J. D., BARR, D. S., DAY, L. A., KASEMIR, K., KAMPERSCHROER, J., LYSENKO, W. P., MARTINEZ, D. G., O'HARA, J. F., PIECK, M., POWER, J. F., SELLYEY, W. C., SHURTER, R. B., and STETTLER, M. W., "LEDA Beam Diagnostics Instrumentation: Measurement Comparisons and Operational Experience," in *Proceedings of the Beam Instrumentation Workshop 2000* (AIP, 2000) **546**, 401–409.

GILPATRICK, J. D., BARR, D. S., DAY, L. A., LEDFORD, J. E., PIECK, M., SHURTER, R. B., STETTLER, M. W., VALDIVIEZ, R., KAMPERSCHROER, J., MARTINEZ, D. G., and O'HARA, J. F., "Beam Diagnostics Instrumentation for a 6.7-MeV Proton Beam Halo Experiment," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **1**, 184–186.

GIOIA, J. G., CUMMINGS, K. A., GAUTIER, D. C., HARGENRATER, T. V., HAYNES, W. B., KRAWCZYK, F. L., MADRID, M. A., ROYBAL, W. T., RUSNAK, B., SCHMIERER, E. N., SMITH, B. G., ZIMMERMAN, R. L., KISHIYAMA, K., SHEN, S., and SAFA, H., "A Room-Temperature Test Bed for Evaluating 700-MHz RF Windows and Power Couplers for the Superconducting Cavities of the APT Linac," in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) **2**, 1396–1398.

HARDEKOPF, R. A., "Progress in Design of the SNS Linac," in *Proceedings of the 15th Meeting of the International Collaboration on Advanced Neutron Sources* (JAERI, 2001) **1**, 197–212.

HOEKSTRA, S., LEUNG, K., THOMAE, R. W., and PRICHARD, B. A., "Improvements on H⁻ Sources for Spallation Neutron Source Application," in *Proceedings of the 2000 European Particle Accelerator Conference* **1604** (2000).

KAMPERSCHROER, J., GILPATRICK, J. D., GURD, P. A., MARTINEZ, D. G., O'HARA, J. F., SAGE, J., SHURTER, R. B., and STETTLER, M. W., "Initial Operation of the LEDA Beam-Induced Fluorescence Diagnostic," in *Proceedings of the Beam Instrumentation Workshop 2000* (AIP, 2000) **546**, 456–463.

KORZEKWA, R. A., ROSOCHA, L. A., and GROTHAUS, M., "Analysis of a Pulsed Corona Circuit," in *Proceedings of the 12th International Pulsed Power Conference* (IEEE, 1999) **1**, 519–522.

KURENNOY, S. S. and POWER, J. F., "Meander-line Current Structure Development for SNS Fast Chopper," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **2**, 932.

KURENNOY, S. S., "Beam-Position Phase Monitors for SNS Linac," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **1**, 171.

KURENNOY, S. S., "Non-Linearities and Effects of Transverse Beam Size in Beam-Position Monitors," *Physical Review Special Topics—Accelerators and Beams* **4**, 092801 (2001).

LYLES, J. T. M. and DAVIS, J. L., "Improvements to the Cathode-Follower RF Amplifier System for the LANSCE Proton Storage Ring," in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) **2**, 1001–1003.

LYLES, J. T. M. and DAVIS, J. L., "Low-Level RF Control for the LANSCE Proton Storage Ring Buncher," in *Proceedings of the 2001 Particle Accelerator Conference* (IEEE, 2001) 920–922.

LYLES, J. T. M., CLARK, D. C., DAVIS, J. L., FRIEDRICH, C., and MCCRADY, R. C., "Progress on the New High-Power 200-MHz RF System for the LANSCE DTL," in *Proceedings of the 2001 Particle Accelerator Conference* (IEEE, 2001) 917–919.

LYSENKO, W. P., GILPATRICK, J. D., RYBARYK, L. J., SCHNEIDER, J. D., SMITH, H. V., YOUNG, L. M., and SCHULZE, M. E., "Determining Phase-Space Properties of the LEDA RFQ Output Beam," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **2**, 809–811.

MCGEHEE, P. M., DALESIO, L. R., KERSTIENS, D. M., PIECK, M., STETTLER, M. W., WRIGHT, R. M., MOORE, D. M., and FLOERSCH, R. H., "The LEDA Control System," in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) 652–654.

NGUYEN, D. C., SHEFFIELD, R. L., FORTGANG, C. M., GOLDSTEIN, J. C., KINROSS-WRIGHT, J. M., and EBRAHIM, N. A., "First Lasing of the Regenerative Amplifier FEL," *Nuclear Instruments and Methods A* **429**, 125–30 (1998).

NIELSEN, K. E., DAVIS, H. A., BALLARD, E. O., GRIBBLE, R. F., and PARSONS, W. M., "Atlas Transmission Line Breakdown Analysis," in *Proceedings of the 12th Pulsed-Power Plasma Science Conference* (IEEE, 1999) 381–384.

O'HARA, J. F., GILPATRICK, J. D., DAY, L. A., and KAMPERSCHROER, J., "Slow Wire-Scanner Beam-Profile Measurement for LEDA," in *Proceedings of the Beam Instrumentation Workshop 2000* (AIP, 2000) **546**, 510–518.

PARSONS, W. M., BOWMAN, D. W., BALLARD, E. O., BARR, G. W., COCHRANE, J. C., DAVIS, H. A., GRIBBLE, R. F., GRIEGO, J. R., HINCKLEY, W. B., NIELSEN, K. E., PARKER, J. V., RICKETTS, R. L., SALAZAR, H. R., SCUDDER, D. W., THOMPSON, M. C., TRAINOR, R. J., VALDEZ, G. A., VIGIL, B. N., WAGANAAR, W. J., WATT, R. G., and WYSOCKI, F. J., "An Overview of the Atlas Pulsed-Power Systems," in *Proceedings of the 12th Pulsed-Power Plasma Science Conference* (IEEE, 1999) 976–979.

QIANG, J. and HABIB, S., "A Second-Order Stochastic Leap-Frog Algorithm for Langevin Simulation of Intrabeam Scattering," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **1**, 81–91.

QIANG, J. and RYNE, R. D., "Large-Scale Simulation of Beam Dynamics in High-Intensity Ion Linacs Using Parallel Supercomputers," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **1**, 86–88.

QIANG, J. and RYNE, R. D., "Parallel 3D Poisson Solver for a Charged Beam in a Conducting Pipe," *Computer Physics Communications* **138** (1), 18–28 (2001).

Publications

RAPAPORT, J., SUGARBAKER, E. R., DELUCIA, S. L., LUTHER, B. A., GOODMAN, C. D., PARK, B. K., RYBARYK, L. J., and TADDEUCCI, T. N., "Observation of the Spin Isovector Monopole Resonance Using the Pb(polarized p, polarized n) Bi Reaction at 795 MeV," *Physical Review C* **63**, 014603 (2001).

RYBARYK, L. J., SCHNEIDER, J. D., SMITH, H. V., YOUNG, L. M., and SCHULZE, M. E., "LEDA Beam Operations Milestone and Observed Beam Transmission Characteristics," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **1**, 584–586.

SCHMIERER, E. N., CHAN, K. C. D., GAUTIER, D. C., GIOIA, J. G., HAYNES, W. B., KRAWCZYK, F. L., MADRID, M. A., WAYNERT, J. A., and RUSNAK, B. "High-Power Testing of the APT Power Coupler," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **2**, 944–946.

SCHMIERER, E. N., LUJAN, R. E., RUSNAK, B., SMITH, B. G., HAYNES, W. B., GAUTIER, D. C., WAYNERT, J. A., GIOIA, J. G., and KRAWCZYK, F. L., "Development of the SCRF Power Coupler for the APT Accelerator," in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) **2**, 977–979.

SCHRIBER, S. O., "Analog Analysis of π -Mode Structures: Results and Implications," *Physical Review Special Topics—Accelerators and Beams* **4** (12), 122001 (2001).

SCHRIBER, S. O., "One-Step Tuning Algorithm for π -Mode Cavities," *Physical Review Special Topics—Accelerators and Beams* **4** (12), 122002 (2001).

SCHULZE, M. E., GILPATRICK, J. D., LYSENKO, W. P., RYBARYK, L. J., SCHNEIDER, J. D., SMITH, H. V., and YOUNG, L. M., "Beam-Emissittance Measurements for the LEDA RFQ," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **1**, 575.

SELLYEY, W. C., GILPATRICK, J. D., BARR, D. S., and O'HARA, J. F., "Experience with Beam-Loss Monitors in the Low-Energy Demonstration Accelerator," in *Proceedings of the Beam Instrumentation Workshop 2000* (AIP, 2000) **546**, 585–593.

SHEN, S., BEHNE, D. M., HARPER, M. T., KISHIYAMA, K., VALDIVIEZ, R., and SCHRAGE, D. L., "Testing of the Vacuum System for APT/LEDA RFQ," in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) **2**, 1333–1335.

SHURTER, R. B., GILPATRICK, J. D., and POWER, J. F., "BPM Analog Front-End Electronics Based on the AD8307 Log Amplifier," in *Proceedings of the Beam Instrumentation Workshop 2000* (AIP, 2000) **546**, 581–584.

SMITH, H. V. and SCHNEIDER, J. D., "Status Report on the Low-Energy Demonstration Accelerator (LEDA)," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **1**, 581.

SMITH, H. V., GILPATRICK, J. D., JOHNSON, K. F., LYSENKO, W. P., MCGEHEE, P. M., REES, D. E., REGAN, A. H., RYBARYK, L. J., SCHNEIDER, J. D., SHERMAN, J. D., and YOUNG, L. M., "Update on the Commissioning of the Low-Energy Demonstration Accelerator (LEDA) Radio-Frequency Quadrupole (RFQ)," in *Proceedings of the 2nd Advanced Accelerator Workshop on the Physics of High-Brightness Beams* (World Scientific, 2000) 466–479.

VALDIVIEZ, R., GILPATRICK, J. D., HAAGENSTAD, H., LEDFORD, J. E., MARTINEZ, F. A., and O'HARA, J. F., "Intense Proton Core and Halo Beam-Profile Measurement: Beam-Line Component Mechanical Design," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **1**, 181–183.

VALDIVIEZ, R., SCHRAGE, D. L., MARTINEZ, F. A., and CLARK, W. L., "The Use of Dispersion-Strengthened Copper in Accelerator Designs," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **2**, 956–958.

WANG, T-S. F., "A Particle-Core Model for Transverse Dynamics of Beam Halo in Periodic-Focusing Channels," in *Proceedings of the 2nd Advanced Accelerator Workshop on the Physics of High-Brightness Beams* (World Scientific, 2000) 222.

WANG, T-S. F., "A Particle-Core Study of Halo Dynamics in Periodic-Focusing Channels," *Physical Review E* **61**, 855 (1999).

WANG, T-S. F., "A Simple Simulation of Electron-Proton Instability," in *Proceedings of the Workshop in Instabilities of High-Intensity Hadron Beams in Rings* (AIP, 1999) **496**, 305.

WANG, T-S. F., DAVIDSON, R. C., and QIN, H., "Kinetic Description of Electron-Ion Instability in High-Intensity Linacs and Storage Rings," in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) **3**, 1623.

- WANG, T-S. F., DAVIDSON, R. C., and QIN, H., "Vlasov-Maxwell Description of Electron-Ion Two-Stream Instability in High-Intensity Linacs and Storage Rings," *Physics Letters A* **252**, 213 (1999).
- WANG, T-S. F., KURENNOY, S. S., and GLUCKSTERN, R. L., "Space-Charge Impedance of RF-Shielding Wires with External Ceramic and Conducting Pipes," *Physical Review Special Topics—Accelerators and Beams* **4**, 104201 (2001).
- WANGLER, T. P. "Beam Halo in Proton Linac Beams," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **1**, 341–345.
- YOUNG, L. M., BOLME, G. O., GILPATRICK, J. D., JOHNSON, K. F., LYSENKO, W. P., MCGEHEE, P. M., NATH, S., REES, D. E., REGAN, A. H., RYBARYK, L. J., SCHNEIDER, J. D., SCHULZE, M. E., SHERMAN, J. D., SCHRAGE, D. L., and SMITH, H. V., "Low-Energy Demonstration Accelerator (LEDA) Radio-Frequency Quadrupole Results," in *Proceedings of the 2nd Advanced Accelerator Workshop on the Physics of High-Brightness Beams* (World Scientific, 2000) 488–503.
- YOUNG, L. M., RYBARYK, L. J., SCHNEIDER, J. D., SCHULZE, M. E., and SMITH, H. V., "High-Power Operations of LEDA," in *Proceedings of the XX International Linac Conference* (SLAC, 2000) **1**, 336–340.
- ### Spallation Science and Technology
- BARNETT, M. H., WECHSLER, M. S., DUDZIAK, D. J., and CORZINE, R. K., "Calculations of Radiation Damage at SNS," in *Proceedings of the 3rd International Topical Meeting on Nuclear Applications of Accelerator Technology* (ANS, 1999) 555–559.
- BAUER, G. S., DAI, Y., MALOY, S. A., MANSUR, L., and ULLMAIER, H., "Summary of the 4th International Workshop on Spallation Materials Technology (IWSMT-4)," *Journal of Nuclear Materials* **296**, 321–325 (2001).
- BILLEN, J. H., TAKEDA, H., and BHATIA, T. S., "Linac Rf Structures for the Spallation Neutron Source," in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) **5**, 3585–3587.
- BURMAN, R. L., and PLISCHKE, P., "Neutrino Flux Calculations for Future Spallation Neutron Facilities," *Nuclear Instruments Methods in Physics Research A* **398**, 147 (1997).
- CHEN, J., DAI, Y., CARSUGHI, F., SOMMER, W. F., BAUER, G. S., and ULLMAIER, H., "Mechanical Properties of 304L Stainless Steel Irradiated with 800-MeV Protons," *Journal of Nuclear Materials* **275**, 115–118 (1999).
- CORZINE, R. K., FERGUSON, P. D., MORGAN, G. L., QUINTANA, D. L., WATERS, L. S., COOPER, R. G., LILLESTRAND, R., and WHITESON, A., "MCNPX Benchmarks of In- and Out-of-Beam Energy Deposition for 800-MeV Protons," in *Proceedings of the 4th International Topical Meeting on Nuclear Applications of Accelerator Technology* (ANS, 2000) 398–404.
- FERGUSON, P. D., PITCHER, E. J., RUSSELL, G. J., and KAWAI, M., "Spallation Source Neutronics and Radiation Shielding Using the LAHET Code System at LANL," in *Proceedings of the JHF Symposium on Neutronics and Radiation Shielding for Spallation Neutron Sources* (KEK, 1999) 3–12.
- FERGUSON, P. D., WATERS, L. S., and CORZINE, R. K., "Re-analysis of the Belyakov-Bodin Energy Deposition Experiment Using MCNPX," in *Proceedings of the 4th International Topical Meeting on Nuclear Applications of Accelerator Technology* (ANS, 2000) 391–397.
- FERGUSON, P. D., WATERS, L. S., KIDMAN, R. B., QUINTANA, D. L., PACIOTTI, M. A., RUSSELL, G. J., PITCHER, E. J., and CORZINE, R. K., "Comparison of Measurements and Calculations of Decay Heat in the APT 1998 Area A Experiment," in *Proceedings of the 4th International Topical Meeting on Nuclear Applications of Accelerator Technology* (ANS, 2000) 415–419.
- GARNER, F. A., OLIVER, B. M., GREENWOOD, L. R., JAMES, M. R., FERGUSON, P. D., MALOY, S. A., and SOMMER, W. F., "Determination of Helium and Hydrogen Yield from Measurements on Pure Metals and Alloys Irradiated by Mixed High-Energy Proton and Spallation Neutron Spectra in LANSCE," *Journal of Nuclear Materials* **296**, 66–82 (2001).
- HAMILTON, M. L., GARNER, F. A., TOLOCZKO, M. B., MALOY, S. A., SOMMER, W. F., JAMES, M. R., FERGUSON, P. D., and LOUTHAN, M., "Shear Punch and Tensile Measurements of Mechanical Property Changes Induced in Various Austenitic Alloys by High-Energy Mixed Proton and Neutron Irradiation at Low Temperatures," *Journal of Nuclear Materials* **283–287**, 418–422 (2000).

Publications

JAMES, M. R., MALOY, S. A., GAC, F. D., SOMMER, W. F., CHEN, J., and ULLMAIER, H., "The Mechanical Properties of an Alloy 718 Window After Irradiation in a Spallation Environment," *Journal of Nuclear Materials* **296**, 139–144 (2001).

JAMES, M. R., MALOY, S. A., SOMMER, W. F., and HAMILTON, M. L., "High-Energy Spallation Neutron Effects on the Tensile Properties of Materials for the Target and Blanket Components for the Accelerator Production of Tritium Project," in *Proceedings of the 20th International Symposium on Effects of Radiation on Materials* (ASTM, 2001) **1405**, 660–671.

JAMES, M. R., MALOY, S. A., SOMMER, W. F., FERGUSON, P. D., FOWLER, M. M., and CORZINE, R. K., "Spectral Unfolding of Mixed Proton/Neutron Fluences in the LANSCE Irradiation Environment," *Reactor Dosimetry* (ASTM STP, 2000) 1398.

JAMES, M. R., MALOY, S. A., SOMMER, W. F., FOWLER, M. M., DRY, D. E., FERGUSON, P. D., CORZINE, R. K., and MUELLER, G. C., "Assessment of Radiation Exposure for Materials in the LANSCE Spallation Irradiation Facility," in *Proceedings of the 4th International Topical Meeting on Nuclear Applications of Accelerator Technology* (ANS, 2000) 263–269.

LILLARD, R. S., GAC, F. D., PACIOTTI, M. A., FERGUSON, P. D., WILLCUTT, G. J., and DAEMEN, L. L., "The Influence of High-Energy Proton Irradiation on the Corrosion of Materials," in *Proceedings of the 20th International Symposium on Effects of Radiation on Materials* (ASTM, 2001) **1405**, 672–673.

LOUTHAN, M., MICKALONIS, J. I., MALOY, S. A., and JAMES, M. R., "Examination of Irradiated 304L Stainless Steel to 6061-T6 Aluminum Inertia-Welded Transition Joints," in *Proceedings of the 20th International Symposium on Effects of Radiation on Materials* (ASTM, 2001) **1405**, 573–587.

MALOY, S. A., JAMES, M. R., WILLCUTT, G. J., SOMMER, W. F., LOUTHAN, M., HAMILTON, M. L., and GARNER, F. A., "The Effect of High-Energy Protons and Neutrons on the Tensile Properties of Materials Selected for the Target and Blanket Components in the Accelerator," in *Proceedings of the 20th International Symposium on Effects of Radiation on Materials* (ASTM, 2001) **1405**, 644–659.

MALOY, S. A., JAMES, M. R., WILLCUTT, G. J., SOMMER, W. F., SNEAD, L., HAMILTON, M. L., and GARNER, F. A., "The Mechanical Properties of 316/304L Stainless Steels, Alloy 718 and Mod 9Cr-1Mo After Irradiation in a Spallation Environment," *Journal of Nuclear Materials* **296**, 119–128 (2001).

MOSES, J. D., Holtkamp, D. B., KING, J. D., LISOWSKI, P. W., and SIMMONS, J. E., "Angular Distribution of Neutral Hydrogen Following Collisional Electron Detachment from H⁻ at 2, 4, and 6 MeV," *Physical Review A* **6304** (4), 2716 (2001).

MUHRER, G., FERGUSON, P. D., RUSSELL, G. J., and PITCHER, E. J., "As-Built Monte Carlo Model of the Lujan Target System and Comparison of Its Neutronic Performance to a Physics Model," in *Proceedings of the 4th International Topical Meeting on Nuclear Applications of Accelerator Technology* (ANS, 2000) 116–119.

MUHRER, G., RUSSELL, G. J., FERGUSON, P. D., and PITCHER, E. J., "Effectiveness of Mercury Beam-Line Shutters at the Lujan Center," in *Proceedings of the 4th International Topical Meeting on Nuclear Applications of Accelerator Technology* (ANS, 2000) 120–128.

OLIVER, B. M., GARNER, F. A., HAMILTON, M. L., SOMMER, W. F., MALOY, S. A., and FERGUSON, P. D., "Hydrogen and Helium Gas Formation and Their Release Kinetics in Tungsten Rods After Irradiation with 800-MeV Protons," in *Proceedings of the 20th International Symposium on Effects of Radiation on Materials* (ASTM, 2001) **1405**, 762–774.

OLIVER, B. M., GARNER, F. A., HAMILTON, M. L., VENHAUS, T. J., CAUSEY, R. A., and MALOY, S. A., "Hydrogen Release from 800-MeV Proton-Irradiated Tungsten Rods," *Physica Scripta T* **94**, 137–140 (2001).

OLIVER, B. M., GARNER, F. A., SOMMER, W. F., MALOY, S. A., FERGUSON, P. D., and JAMES, M. R., "Retention of Very High Levels of Helium and Hydrogen Generated in Various Structural Alloys by 800-MeV Protons and Spallation Neutrons," in *Proceedings of the 20th International Symposium on Effects of Radiation on Materials* (ASTM, 2001) **1405**, 612–630.

OLIVER, B. M., HAMILTON, M. L., GARNER, F. A., SOMMER, W. F., MALOY, S. A., and FERGUSON, P. D., "Helium/Hydrogen Measurements in High-Energy Proton-Irradiated Tungsten," in *Proceedings of the 19th International Symposium on Effects of Radiation on Materials* (ASTM STP, 1999) **1366**, 1109.

QIANG, J., RYNE, R. D., BLIND, B., BILLEN, J. H., BHATIA, T. S., GARNETT, R. W., NEUSCHAEFER, G., and TAKEDA, H., "High-Resolution Parallel Particle-in-Cell Simulations of Beam Dynamics in the Spallation Neutron Source Linac," *Nuclear Instruments and Methods A* **457** (1-2), 1-11 (2001).

SENCER, B. H., BOND, G. M., GARNER, F. A., HAMILTON, M. L., MALOY, S. A., and SOMMER, W. F., "Correlation of Radiation-Induced Changes in Mechanical Properties and Microstructural Development of Alloy 718 Irradiated with Mixed Spectra of High-Energy Protons and Spallation Neutrons," *Journal of Nuclear Materials* **296**, 145-154 (2001).

SENCER, B. H., BOND, G. M., GARNER, F. A., HAMILTON, M. L., OLIVER, B. M., THOMAS, L. E., MALOY, S. A., SOMMER, W. F., JAMES, M. R., and FERGUSON, P. D., "Microstructural Evolution of Alloy 718 at High Helium and Hydrogen Generation Rates During Irradiation with 600- to 800-MeV Protons," *Journal of Nuclear Materials* **283-287**, 324-328 (2000).

SENCER, B. H., BOND, G. M., GARNER, F. A., MALOY, S. A., SOMMER, W. F., and JAMES, M. R., "Microstructural Alteration of Structural Alloys by Low-Temperature Irradiation with High-Energy Protons and Spallation Neutrons," in *Proceedings of the 20th International Symposium on Effects of Radiation on Materials* (ASTM, 2001) **1405**, 588-611.

SENCER, B. H., BOND, G. M., HAMILTON, M. L., GARNER, F. A., MALOY, S. A., and SOMMER, W. F., "Microstructural Origins of Radiation-Induced Changes in Mechanical Properties of 316L and 304L Austenitic Stainless Steels Irradiated with Mixed Spectra of High-Energy Protons and Neutrons," *Journal of Nuclear Materials* **296**, 112-118 (2001).

SNEAD, L., ALEXANDER, D., FERGUSON, P. D., JAMES, M. R., MALOY, S. A., SOMMER, W. F., WILLCUTT, G. J., and LOUTHAN, M., "Fracture Toughness Characterization of Inconel 718, 304L, and 316L Austenitic Stainless Steels After Irradiation in High-Energy, Mixed Proton/Neutron Spectrum," in *Proceedings of the 20th International Symposium on Effects of Radiation on Materials* (ASTM, 2001) **1405**, 125-147.

TALLERICO, P. J. and REASS, W. A., "Modulator Considerations for the SNS RF System," in *Proceedings of the Power Modulator Symposium* (IEEE, 1998) 62-65.

Neutron Scattering—Materials Science

ARAKAWA, H., ARESTA, M., ARMOR, J. N., BARTEAU, M. A., BECKMAN, E. J., BELL, A. T., BERCAW, J. F., CREUTZ, C., DINJUS, E., DIXON, D. A., DOMEN, K., DUBOIS, D. L., ECKERT, J., FUJITA, E., GIBSON, D. H., GODDARD, W. A., GOODMAN, D. W., KELLER, J., KUBAS, G. J., KUNG, H. H., LYONS, J. E., MANZER, L. E., MARKS, T. J., MOROKUMA, K., NICHOLAS, K. M., PERIANA, R., QUE, L., ROSTRUP-NIELSON, J., SACHTLER, W. M., SCHMIDT, L. D., SEN, A., SOMORJAI, G. A., STAIR, P. C., STULTS, B. R., and TUMAS, W., "Catalysis Research of Relevance to Carbon Management: Progress, Challenges, and Opportunities," *Chemical Reviews* **101** (4), 953-996 (2001).

ASTHEIMER, R. J., BENNETT, K. A., HOY, J. C., JONES, K. W., STURCHIO, N. C., SUTTON, S. R., WAYCHUNAS, G. A., and WOODWARD, N. B., "Inside Rocks," *Geotimes* **45** (11), 20-23 (2000).

AUERBACH, L. B., BURMAN, R. L., CALDWELL, D. O., CHURCH, E. D., DONAHUE, J. B., FAZELY, A. R., GARVEY, G. T., GUNASINGHA, R. M., IMLAY, R. L., LOUIS, W. C., and MAJKIC, R., "Measurement of Electron-Neutrino Electron Elastic Scattering," *Physical Review D* **63**, 112001 (2001).

BEDROV, D., BORODIN, O., SMITH, G. D., TROUW, F., and MAYNE, C., "Simulation and QENS Studies of Molecular Dynamics in Aqueous Solutions of 1,2-Dimethoxyethane," *Journal of Physical Chemistry B* **104** (21), 5151-5154 (2000).

BROWN, D. W., BOURKE, M. A. M., DUNN, P. S., FIELD, R. D., STOUT, M. G., and THOMA, D. J., "Uniaxial Tensile Deformation of Uranium 6 Weight Percent Niobium: A Neutron Diffraction Study of Deformation Twinning," *Metallurgical and Materials Transactions A* **32A** (9), 2219-2228 (2001).

BURGESS, I., ZAMLYNNY, V., SZYMANSKI, G., LIPKOWSKI, J., MAJEWSKI, J. P., SMITH, G. S., SATIJA, S. K., and IVKOV, R., "Electromechanical and Neutron Reflectivity Characterization of Dodecyl Sulfate Adsorption and Aggregation at the Gold-Water Interface," *Langmuir* **17** (11), 3355-3367 (2001).

CHANG, S. C., JUNG, M. H., NAKOTTE, H., BRUCK, E., MIHALIK, M., LACERDA, A. H., PROKES, K., TORIKACHVILI, M. S., and SCHULTZ, A. J., "Electronic Properties of UlrGe in High Magnetic Fields," *Journal of Applied Physics* **89** (11), 7186-7188 (2001).

Publications

- CHANG, S. C., NAKOTTE, H., ANDREEV, A. V., BORDALLO, H. N., HAVELA, L., SECHOVSKY, V., and TORIKACHVILI, M. S., "Magnetism in Some UCo_{1/3}T_{2/3}Al Solid Solutions (T=Transition Metal)," *Journal of Applied Physics* **87**, 6815 (2000).
- CHANG, S. C., NAKOTTE, H., SVOBODA, P., TORIKACHVILI, M. S., and SECHOVSKY, V., "On Some Magnetic Phase Transitions in CePtSn," *Journal of Alloys and Compounds* **323**, 380–383 (2001).
- CHOO, H., BOURKE, M. A. M., and DAYMOND, M. R., "A Finite Element Analysis of the Inelastic Relaxation of Thermal Residual Stress in Continuous Fiber-Reinforced Composites," *Composites Science and Technology* **61** (12), 1757–1772 (2001).
- CHOO, H., RANGASWAMY, P., and BOURKE, M. A. M., "Evolution of Phase Fraction and Elastic Lattice Strains in Ti-6Al-4V/SiC Composite During Heating: A Neutron Diffraction Study," in *Proceedings of the 6th International Conference on Composites Engineering (ICCE/6, 1999)*, 127–128.
- CHRISTIANSON, A. D., BUD'KO, S. L., SCHMIEDESHOFF, G. M., BEYERMANN, W. P., CANFIELD, P. C., BOEBINGER, G., and LACERDA, A. H., "High-Field *c*-Axis Magnetotransport of Single-Crystal YbNi₂B₂C," *Physica B* **294–295**, 225–228 (2001).
- CLAUSEN, B. and BOURKE, M. A. M., "Lattice Plane Response During Tensile Loading of an Aluminum 2% Magnesium Alloy," *Metallurgical and Materials Transactions A* **32A** (3A), 691–694 (2001).
- DRAGOI, D., USTUNDAG, E., CLAUSEN, B., and BOURKE, M. A. M., "Investigation of Thermal Residual Stresses in Tungsten-Fiber/Bulk Metallic Glass Matrix Composites," *Scripta Materialia* **45** (2), 245–252 (2001).
- ECKERT, J., ALBINATI, A., and LECHNER, R. E., "Evidence for Chemisorbed Molecular Hydrogen Fe-ZSM5 From Inelastic Neutron Scattering," *Journal of the American Chemical Society* **123** (33), 8147–8148 (2001).
- ECKERT, J., BARTHES, M., KLOOSTER, W. K., ALBINATI, A., AZNAR, R., and KOETZLE, T. F., "No Evidence for Proton Transfer Along the N-H ... O Hydrogen Bond in N-Methylacetamide: Neutron Single-Crystal Structure at 250 and 276 K," *Journal of Physical Chemistry B* **105** (1), 19–24 (2001).
- FITZSIMMONS, M. R., LEIGHTON, C., HOFFMANN, A. F., YASHAR, P. C., GROVES, J. R., NOGUES, J., LIU, K., MAJKRZAK, C. F., DURA, J. A., FRITZSCHE, H., SCHULLER, I. K., "Influence of Interfacial Disorder and Temperature on Magnetization Reversal in Exchange-Coupled Bilayers," *Physical Review B* **64** (10), 104415/1–5 (2001).
- GAPINSKI, J., STEFFEN, W., PATKOWSKI, A., SOKOLOV, A. P., KISLIUK, A., RUSSINA, M., MEZEI, F., and SCHOBER, H., "Spectrum of Fast Dynamics in Glass-Forming Liquids: Does the "Knee" Exist?," *Journal of Chemical Physics* **110** (5), 2312–2315 (1999).
- GROVES, J. R., YASHAR, P. C., ARENDT, P. N., DEPAULA, R. F., PETERSON, E. J., FITZSIMMONS, M. R., "Ultra-Thin Bi-axially Textured IBAD MgO Template Layers Resolved by Grazing Incidence X-ray Diffraction," *Physica C* **355** (3–4), 293–298 (2001).
- HARRISON, N., MIELKE, C. H., CHRISTIANSON, A. D., BROOKS, J. S., and TOKUMOTO, M., "Field-Induced Dynamic Diamagnetism in a Charge-Density-Wave System," *Physical Review Letters* **86** (8), 1586–1589 (2001).
- HAWLEY, M. E., ORLER, E. B., WROBLESKI, D. A., HJELM, R. P., and BROWN, G. W., "Comprehensive Structural Study of Pre- and Post-Heat-Treated Compression Molded Polyurethane Samples of Varying Composition Studied by Scanning Probe Techniques," in *Proceedings of the Filled and Nanocomposite Polymer Materials Symposium (MRS, 2001)* **661**, KK471–KK476.
- HE, X. and LI, N., "A Kinetic Model for Corrosion and Precipitation in Nonisothermal LBE Flow Loop," *Journal of Nuclear Materials* **297**, 214–219 (2001).
- HIJAR, C. A., JACUBINAS, R. M., ECKERT, J., HENSON, N. J., HAY, P. J., and OTT, K. C., "The Siting of Ti in TS-1 is Nonrandom. Powder Neutron Diffraction Studies and Theoretical Calculations of TS-1 and FeS-1," *Journal of Physical Chemistry B* **104** (51), 12157–12164 (2000).
- HJELM, R. P., "Carbon Black Structure and Associations in Filled Rubber Assessed by Small-Angle Neutron Scattering and Contrast Variation," *Abstracts of Papers of the American Chemical Society* **219** (2), 199 (2000).
- HOFFMANN, A., FITZSIMMONS, M. R., DURA, J. A., MAJKRZAK, C. F., "Investigating Magnetic Proximity Effects in NiO/Pd with Polarized Neutron Reflectometry," *Physical Review B* **65** (2), 024428/1–7 (2002).

- KENT, M. S., "A Quantitative Study of Tethered Chains in Various Solution Conditions Using Langmuir Diblock Copolymer Monolayers," *Macromolecular Rapid Communications* **21**, 243-270 (2000).
- KENT, M. S., YIM, H., MAJEWSKI, J. P., SMITH, G. S., SATIJA, S. K., and SHIN, K., "Adsorption of Myoglobin to Metal-Chelating Lipid Monolayers at the Air-Liquid Interface by Neutron Reflectivity," *Abstracts of Papers of the American Chemical Society* **222** (2), U371-U371 (2001).
- KOLOMIETS, A. V., HAVELA, L., BORDALLO, H. N., NAKOTTE, H., YARTYS, V. A., HAUBACK, B., DRULIS, H., IWASIECZKO, W., and DELONG, L. E., "Magnetic Properties and Crystal Structure of HoNiAl and UNiAl Hydrides," *Journal of Applied Physics* **87**, 6815 (2000).
- KUBAS, G. J., "Metal-Dihydrogen and Sigma-Bond Coordination: The Consummate Extension of the Dewar-Chatt-Duncanson Model for Metal-Olefin π Bonding," *Journal of Organometallic Chemistry* **635** (1-2), 37-68 (2001).
- KUHL, T. L., SMITH, G. S., MAJEWSKI, J. P., ISRAELACHVILI, J. N., and HAMILTON, W. A., "Neutron Confinement Cell for Investigating Complex Fluids," *Review of Scientific Instruments* **72** (3), 1715-1720 (2001).
- LANGAN, P. A., ROBINSON, R. A., BROWN, P. J., ARGYRIOU, D. N., HENDRICKSON, D. N., and CHRISTOU, G., "A Low-Temperature Neutron Diffraction Study of Mn₁₂-Acetate," *Acta Crystallographica C* **57**, 909-910 (2001).
- LAWSON, A. C., "An Improved Lindemann Melting Rule," *Philosophical Magazine B* **81**, 255-266 (2001).
- LEE, K. Y. C., GOPAL, A., VON NAHMEN, A., ZASADZINSKI, J. A., MAJEWSKI, J. P., SMITH, G. S., HOWES, P. B., and KJAER, K., "Influence of Palmitic Acid and Hexadecanol on the Phase Transition Temperature and Molecular Packing of Dipalmitoylphosphatidylcholine Monolayers at the Air-Water Interface," *Journal of Chemical Physics* **116** (2), 774-783 (2002).
- LEE, K. Y. C., MAJEWSKI, J. P., KUHL, T. L., HOWES, P. B., KJAER, K., LIPP, M. M., WARING, A. J., ZASADZINSKI, J. A., and SMITH, G. S., "Synchrotron X-ray Study of Lung Surfactant Specific Protein SP-B in Lipid Monolayers," *Biophysical Journal* **81** (1), 572-585 (2001).
- LEIGHTON, C., FITZSIMMONS, M. R., YASHAR, P., HOFFMANN, A., NOGUES, J., DURA, J., MAJKRZAK, C. F., SCHULLER, I. K., "Two-Stage Magnetization Reversal in Exchange-Biased Bilayers," *Physical Review Letters* **86** (19), 4394-4397 (2001).
- LEIGHTON, C., HOFFMANN, A. F., FITZSIMMONS, M. R., NOGUES, J., and SCHULLER, I., "Deposition of Epitaxial α -Fe₂O₃ Layers for Exchange-Bias Studies by Reactive dc Magnetron Sputtering," *Philosophical Magazine B* **81** (12), 1927-1934 (2001).
- MACKINNON, J. A., ECKERT, J., COKER, D. F., and BUG, A. L. R., "Computational Study of Molecular Hydrogen in Zeolite Na-A. II. Density of Rotational States and Inelastic Neutron-Scattering Spectra," *Journal of Chemical Physics* **114** (22), 10137-10150 (2001).
- MAJEWSKI, J. P. and SMITH, G. S., "Exploration of Subsurface Ultra-Thin Organic Layers Used for Biosensors: A Neutron Reflectometry Study," in *Proceedings of the Studies of Subsurface Phenomena by Particle Scattering* (IASIP, 2000) ISBN 0-9701790-0-6.
- MAJEWSKI, J. P., KUHL, T. L., KJAER, K., and SMITH, G. S., "Packing of Ganglioside-Phospholipid Monolayers: An X-ray Diffraction and Reflectivity Study," *Biophysical Journal* **81** (5), 2707-2715 (2001).
- MAJEWSKI, J. P., SMITH, G. S., KUHL, T. L., and ISRAELACHVILI, J. N., "Neutron and X-ray Scattering Studies of Ganglioside- and PEG-Phospholipid Monolayers at the Air-Water Interface," *Biophysical Journal* **80** (1/2), 23A (2001).
- MANLEY, M. E., FULTZ, B. T., MCQUEENEY, R. J., BROWN, C. N., HULTS, W. L., SMITH, J. L., THOMA, D. J., OSBORN, R., and ROBERTSON, J. L., "Large Harmonic Softening of the Phonon Density of States of Uranium," *Physical Review Letters* **86** (14), 3076-3079 (2001).
- MANLEY, M. E., "On the Nature of the Phonon Softening in α -Uranium," *Los Alamos Science* **26** (1), 202 (2000).
- MCQUEENEY, R. J., BISHOP, A., YI, Y.-S., and YU, Z. G., "Charge Localization and Phonon Spectra in Hole-Doped La₂NiO₄," *Journal of Physics—Condensed Matter* **12** (21), L317-L322 (2000).

Publications

MCQUEENEY, R. J., MANLEY, M. E., OSBORN, R., FULTZ, B. T., KWEI, G., and BODGENOFF, P., "Unexpected Similarity of the Dynamic Magnetic Susceptibilities of γ -Cerium and β -Cerium," *Philosophical Magazine B* **81** (7), 675–687 (2001).

MCQUEENEY, R. J., SARRAO, J. L., PAGLIUSO, P. G., STEPHENS, P. W., and OSBORN, R., "Mixed Lattice and Electronic States in High-Temperature Superconductors," *Physical Review Letters* **87** (7), 077001/1–4 (2001).

MIKULINA, O., KAMARAD, J., LACERDA, A. H., SYSHCHENKO, O., FUJITA, T., PROKES, K., SECHOVSKY, V., NAKOTTE, H., BEYERMANN, W. P., and MENOVSKY, A. A., "Pressure Effects on Antiferromagnetism in UNiAl," *Journal of Applied Physics* **87**, 5152 (2000).

MORALES, L. A., LAWSON, A. C., and KENNISON, J. A., "Analysis of Strain Anisotropy in δ -Stabilized Pu-Ga Alloys," in *Proceedings of the Conference on Pu Futures—The Science* (AIP, 2000) **532**, 125–126.

NAKOTTE, H., CHANG, S. C., TUN, Z., PROKES, K., SVOBODA, P., SECHOVSKY, V., and BRUCK, E., "Field Dependence of the Incommensurate Magnetic Order in UNiGe," *Journal of Magnetism and Magnetic Materials* **226**, 70–71 (2001).

NAKOTTE, H., PURWANTO, A., ROBINSON, R. A., PROKES, K., DE BOER, F. R., HAVELA, L., SECHOVSKY, V., PEREIRA, L. C. J., REBIZANT, J., SPIRLET, J. C., KLAASSE, J., SERET, A., and DE CHATEL, P. F., "Hybridization Effects in U_2T_2X Compounds: Magnetic Structures of U_2Rh_2Sn and U_2Ni_2In ," *Physical Review B* **53** (6), 3263–3271 (1996).

PARKER, R. B., BROWN, D. W., and RANGASWAMY, P., "Residual Stresses in an Inconel 718 Clad-Tungsten Tube Processed by Hot Isostatic Pressing," *Materials Science Forum* **347**, 229–234 (2000).

PROFFEN, T., NEDER, R., and BILLINGE, S. J. L., "Teaching Diffraction Using Computer Simulations Over the Internet," *Journal of Applied Crystallography* **34** (6), 767–770 (2001).

PROKES, K., NAKOTTE, H., DE BOER, F. R., LACERDA, A. H., and SECHOVSKY, V., "Metamagnetic Transition in U_2Pd_2In ," *Physica B* **294**, 288–291 (2001).

RANGASWAMY, P., SCHERER, C. P., and BOURKE, M. A. M., "Experimental Measurements and Numerical Simulation of Stress and Microstructure in Carburized 5120 Steel Disks," *Materials Science and Engineering A* **298** (1–2), 158–165 (2001).

RETSOS, H., TERZIS, A. F., ANASTASIADIS, S. H., ANASTASSOPOULOS, D. L., TOPRAKCIOLU, C., THEODOROU, D. N., SMITH, G. S., MENELLE, A., GILL, R. E., HADZIOANNOU, G., and GALLOT, Y., "Mushrooms and Brushes in Thin Films of Diblock Copolymer/Homopolymer Mixtures," *Macromolecules* **35** (3), 1116–1132 (2002).

ROBERTS, M. J., MAJEWSKI, J. P., SMITH, G. S., KJAER, K., STENGER-SMITH, J. D., LINDSAY, G. A., MERWIN, L. H., HOLLINS, R. A., CHAFIN, A. P., and HERMAN, W. N., "Syndioregic Second-Order NLO Polymer and Its Cyclic Dimer: Self-Assembly at the Air-Water Interface," *Abstracts of Papers of the American Chemical Society* **221** (2), U367 (2001).

SMITH, G. S., MAJEWSKI, J. P., KUHL, T. L., ISRAELACHVILI, J. N., and WONG, J. Y., "Neutron Reflectometry Studies of Model Biomembranes at Solid-Liquid Interfaces," *Biophysical Journal* **80**, 14A (2001).

STISHOV, S. M., "Energy, Compressibility, and Covalency in the Carbon Subgroup," *JETP Letters* **71** (1), 15–16 (2000).

STISHOV, S. M., "Energy, Compressibility, and Covalency in the Carbon Subgroup," *Philosophical Magazine Letters* **80** (2), 125–128 (2000).

STISHOV, S. M., "On Quantum Effects in Condensed Matter at High Pressures," *Philosophical Magazine B* **81** (2), 179–191 (2001).

SVOBODA, P., SECHOVSKY, V., CHANG, S. C., NAKOTTE, H., and TORIKACHVILI, M. S., "Magnetic Phase Transitions in CePtSn," *Journal of Applied Physics* **89**, 7189–7191 (2001).

THOMAS, J. R., EMBRECHTS, M., STRINGFIELD, R., and WHEAT, R. M., "Neural Network Analysis of Doppler-Broadened Neutron Absorption Resonance Data," in *Proceedings of the IEEE Mountain Workshop on Soft Computing in Industrial Applications* (IEEE, 2001) **1** (EX504), 77–79.

THOMPSON, J. R., HOFFER, J. K., WISNIEWSKI, A., PUZNIAK, R., KARPINSKI, J., SZYMCZAK, R., ANGST, M., SCHWER, J., and KAZAKOV, S. M., "Influence of Irradiation-Induced Defects and Chemical Substitutions on Flux Pinning in Hg-Based Single Crystals and Films," *Studies of High Temperature Superconductors* **31**, 121–147 (2000).

TORIKACHVILI, M. S., JARDIM, R. F., CHANG, S. C., CHRISTIANSON, A. D., MUCCILLO, R., NAKOTTE, H., and LACERDA, A. H., "Magnetoresistance Measurements in $\text{UCu}_{4+x}\text{Al}_{8-x}$ Compounds," *Journal of Magnetism and Magnetic Materials* **226–230** (1), 42–44 (2001).

USTUNDAG, E., CLAUSEN, B., and BOURKE, M. A. M., "Neutron Powder Diffraction Study of the Reduction of NiAl_2O_4 ," *Applied Physical Letters* **76** (6), 694 (2000).

USTUNDAG, E., DRAGOI, D., CLAUSEN, B., BROWN, D. W., BOURKE, M. A. M., BALCH, D. K., and DUNAND, D. C., "Internal Stresses in Bulk Metallic Glass Matrix Composites," in *Proceedings of Supercooled Liquid, Bulk Glassy, and Nanocrystalline States of Alloys* (MRS, 2000) **644**, 9.3.1–9.3.6.

VAIDYA, R. U., RANGASWAMY, P., MISRA, A., and VERDIER, M., "Residual Stresses in MoSi_2 /Stainless Steel 316L Joints Produced by Metallic-Glass Brazing," *Wire* **50** (3), 1459–1465 (2001).

VAIDYANATHAN, R., BOURKE, M. A. M., and DUNAND, D. C., "Texture, Strain, and Phase Fraction Measurements During Mechanical Cycling in Superelastic NiTi," *Metallurgical and Materials Transactions A* **32** (3), 777–786 (2001).

VON DREELE, R. B., "Binding of *N*-acetylglucosamine to Chicken Egg Lysozyme: A Powder Diffraction Study," *Acta Crystallographica D* **57** (12), 1836–1842 (2001).

WARRIER, S. G., RANGASWAMY, P., BOURKE, M. A. M., and KRISHNAMURTHY, S., "Assessment of the Fiber-Matrix Interface Bond Strength in $\text{SiC}/\text{Ti-6Al-4V}$ Composites," *Materials Science and Engineering A* **259** (2), 220–227 (1999).

XIE, Y. and WENK, H., "Plagioclase Preferred Orientation in Anorthosite by TOF Neutron Diffraction and SEM-EBSD," *Eos, Transactions, American Geophysical Union, Electronic Supplement* **82**, F1145 (2001).

YIM, H., KENT, M. S., IVKOV, R., SATIJA, S. K., MAJEWSKI, J. P., and SMITH, G. S., "Adsorption of Sodium Polystyrene Sulfonate at the Air Surface of Water by Neutron Reflectivity: Concentration Dependence," *Abstracts of Papers of the American Chemical Society* **222** (2), U361 (2001).

YU, Z. G., SMITH, D. L., SAXENA, A., and BISHOP, A. R., "Green's Function Approach for a Dynamical Study of Transport in Metal/Organic/Metal Structures," *Physical Review B* **59** (24), 16001–16010 (1999).

ZHAO, Y., CHU, F., VON DREELE, R. B., and ZHU, Q., "Structural Phase Transitions of HfV_2 at Low Temperatures," *Acta Crystallographica B* **56** (4), 601–606 (2000).

Neutron Scattering—Instrumentation

BENNETT, K. A., VON DREELE, R. B., and WENK, H., "HIPPO, the High-Pressure Preferred Orientation Diffractometer at LANSCE for Characterization of Bulk Materials," in *Proceedings of the 15th Meeting of the International Collaboration on Advanced Neutron Sources* (JAERI, 2001) **1**, 473–482.

BROME, C. R., BUTTERWORTH, J. S., DZHOSYUK, S. N., MATTONI, C. E., MCKINSEY, D. N., DOYLE, J., HUFFMAN, P. R., DEWEY, M. S., WIETFELDT, F. E., GOLUB, R., HABICHT, K., GREENE, G. L., LAMOREAUX, S. K., and COAKLEY, K. J., "Magnetic Trapping of Ultracold Neutrons," *Physical Review C* **63** (5), 055502 (2001).

DAEMEN, L. L. and SEEGER, P. A., "Numerical Solution of Bloch's Equation for Neutron Spin Precession," *Nuclear Instruments and Methods in Physics Research A* **457** (1–2), 338–346 (2001).

MEZEI, F. and RUSSINA, M., "New Opportunities in Quasi-Elastic Neutron-Scattering Spectroscopy," *Physica B* **301** (1–2), 94–98 (2001).

MUHRER, G., RUSSELL, G. J., FERGUSON, P. D., and PITCHER, E. J., "A 3-D Model of the Beam-Line Shield for the HIPPO Instrument at the Lujan Center and Comparison with 2-D Results," in *Proceedings of the 15th Meeting of the International Collaboration on Advanced Neutron Sources* (JAERI, 2001) **2**, 933–938.

Publications

ROSE, C. R., NELSON, R. O., HAMMONDS, J., and WEIZEORICK, J. T., "The LANL Neutron Science Center Time-of-Flight/Position-Sensitive Detector Module: Status and Progress," *IEEE Transactions on Nuclear Science* **47** (2,1), 151–153 (2000).

RUSSELL, G. J., PITCHER, E. J., MUHRER, G., and FERGUSON, P. D., "Neutron Beam-Line Shield Design for the Protein Crystallography Instrument at the Lujan Center," in *Proceedings of the 15th Meeting of the International Collaboration on Advanced Neutron Sources* (JAERI, 2001) **2**, 917–932.

SMITH, G. S. and MAJEWSKI, J. P., "Real-Time Neutron Reflectometry Using Neutron Optical Imaging," in *Proceedings of the 15th Meeting of the International Collaboration on Advanced Neutron Sources* (JAERI, 2001) **1**, 437–442.

THOMAS, J. R., EMBRECHTS, M., STRINGFIELD, R., and WHEAT, R. M., "Neural Network Analysis of Doppler-Broadened Neutron Absorption Resonance Data," in *Proceedings of the IEEE Mountain Workshop on Soft Computing in Industrial Applications* (IEEE, 2001) **1** (EX504), 77–79.

QIANG, J. and RYNE, R. D., "Parallel 3D Poisson Solver for a Charged Beam in a Conducting Pipe," in *Proceedings of the 15th Meeting of the International Collaboration on Advanced Neutron Sources* (JAERI, 2001) **1**, 197–212.

Nuclear Physics

ABFALTERER, W. P., BATEMAN, F. B., DIETRICH, F. S., FINLAY, R. W., HAIGHT, R. C., and MORGAN, G. L., "Measurements of Neutron Total Cross Sections Up to 560 MeV," *Physical Review C* **63**, 044608 (2001).

AGUILAR, A., AUERBACH, L. B., BURMAN, R. L., CALDWELL, D. O., CHURCH, E. D., COCHRAN, A. K., DONAHUE, J. B., FAZELY, A. R., GARVEY, G. T., GUNASINGHA, R. M., IMLAY, R. L., LOUIS, W. C., MAJKIC, R., MALIK, A. G., METCALF, W. J., MILLS, G. B., SANDBERG, V. D., SMITH, D. W., STANCU, I., SUNG, M., TAYLOE, R. L., VAN DALEN, G. J., VERNON, W., WADIA, N. D., WHITE, D. H., and YELLIN, S. J., "Evidence for Neutrino Oscillations From the Observation of ν_e Appearance in a ν_μ Beam," *Physical Review D* **64** (11), 112007/1–22 (2001).

AHMED, M. W., ANDROIC, D., BERTOVIC, I., BORAKER, J., CHRIEN, R. E., CIU, X., DEHNHARD, D. K., EMPL, A., FURIC, M., GERALD, J., GILL, R. L., HUNGERFORD, E. V., JUENGST, H., LAN, K., LIU, J. H., MORRIS, C. L., O'DONNELL, J. M., PENG, J.-C., PETKOVIC, T., RIEDEL, C. M., RUSEK, A., SUTTER, R., TANG, L., THIESSEN, H. A., YOUN, M., and ZEPS, V., "The Construction and Operating Characteristics of a Cathode Strip Chamber System Designed to Measure the Reaction Vertices of a Stopping Kaon Beam," *Nuclear Instruments and Methods in Physics Research A* **469–471**, 95 (2001).

AKDOGAN, T., CHTANGEEV, M. B., FRANKLIN, W. A., MATTHEWS, J. L., SAFKAN, Y., SCHMITT, W. M., GRAM, P. A., and WENDER, S. A., "Differential Cross Sections for Pion Production in the Neutron-Proton System," *Bulletin of the American Physical Society* **46** (7), 61 (2001).

AUERBACH, L. B., BURMAN, R. L., CALDWELL, D. O., CHURCH, E. D., DONAHUE, J. B., FAZELY, A. R., GARVEY, G. T., GUNASINGHA, R. M., IMLAY, R. L., LOUIS, W. C., MAJKIC, R., MALIK, A. G., METCALF, W. J., MILLS, G. B., SANDBERG, V. D., SMITH, D. W., STANCU, I., SUNG, M., TAYLOE, R. L., VAN DALEN, G. J., VERNON, W., WADIA, N. D., WHITE, D. H., and YELLIN, S. J., "Measurement of Electron-Neutrino Electron Elastic Scattering," *Physical Review D* **63**, 112001–112012 (2001).

AUERBACH, L. B., BURMAN, R. L., CALDWELL, D. O., CHURCH, E. D., DONAHUE, J. B., FAZELY, A. R., GARVEY, G. T., GUNASINGHA, R. M., IMLAY, R. L., LOUIS, W. C., MAJKIC, R., MALIK, A. G., METCALF, W. J., MILLS, G. B., SANDBERG, V. D., SMITH, D. W., STANCU, I., SUNG, M., TAYLOE, R. L., VAN DALEN, G. J., VERNON, W., WADIA, N. D., WHITE, D. H., and YELLIN, S. J., "Measurements of Charged Current Reactions of ν_e on ^{12}C ," *Physical Review C* **64** (6), 065501/1–12 (2001).

BENNETT, M. J. and NAGLE, J. L., "Geometric Parameterization of J/PSI Absorption in Heavy-Ion Collisions," *Physical Review C* **59** (5), 2713–15 (1999).

BOUKHAROUBA, N., BATEMAN, F. B., BRIENT, C. E., GRIMES, S. M., MASSEY, T. N., HAIGHT, R. C., and CARLSON, A., "Measurement of the n - p Elastic Scattering Angular Distribution at $E_n=10$ MeV," *Physical Review C* **65**, 014004/1–10 (2001).

- BROOKS, M. L., CHEN, Y., COOPER, M. D., COOPER, P. S., DZEMIDZIC, M., EMPL, A., GAGLIARDI, C. A., HOGAN, G. E., HUGHES, E. B., HUNGERFORD, E. V., KNOTT, J. E., KOETKE, D. D., KROUPA, M., LAN, K., MANWEILER, R. W., MAYES, B. W., MISCHKE, R. E., PIILONEN, L. E., STANISLAUS, T. D. S., STANTZ, K., SZYMANSKI, J. J., TRIBBLE, R. E., TU, X.-L., VAN AUSDELN, L., VON WITSCH, W. H., WRIGHT, S. C., and ZIOCK, K. O., "New Limit for the Lepton-Family-Number Nonconserving Decay $\mu^+ \rightarrow e^+\gamma$," *Physical Review Letters* **83** (8), 1521–1524 (1999).
- BRYANT, H. C., "Experimental Studies of a Quantum-Mechanical Three-Body Problem, Atoms and Molecules in a New Light," in *Proceedings of Pan American Advanced Studies Institute*, 64–73 (2000).
- BRYANT, H. C., "An Experimentalist's View of the H⁻ Ion," *Journal of the Chinese Chemical Society* **48**, 333–341 (2001).
- COHEN, S. and BRYANT, H. C., "Search for the Shape Resonance in the Negative Ion of Hydrogen in Astrophysical Plasmas," *Revista Mexicana de Astronomia y Astrofisica, Serie de Conferencias* **9**, 148–50 (2000).
- CRAWFORD, B. E., BOWMAN, J. D., PENTTILA, S. I., and ROBERSON, N. R., "A Spin Transport System for a Longitudinally Polarized Epithermal Neutron Beam," *Nuclear Instruments and Methods in Physics Research A* **474** (2), 159–71 (2001).
- FRANKLIN, W. A., AKDOGAN, T., CHTANGEEV, M. B., HOUGH, J. B., MATTHEWS, J. L., SAFKAN, Y., and TADDEUCCI, T. N., "Polarization Measurements at the LANSCE Neutron Spallation Source," *Bulletin of the American Physical Society* **46** (2), 130 (2001).
- HAIGHT, R. C., "Medium-Energy Neutron and Proton Data for Therapy," *Radiochimica Acta* **89** (4–5), 289–296 (2001).
- HEIL, M., REIFARTH, R., KAEPPeler, F. K., FOWLER, M. M., RUNDBERG, R. S., ULLMANN, J. L., HAIGHT, R. C., SEABURY, E. H., and WILHELMY, J. B., "A 4 π BaF₂ Detector for (n, γ) Cross-Section Measurements at a Spallation Neutron Source," *Nuclear Instruments and Methods in Physics Research A* **459** (1–2), 229–246 (2001).
- HOGAN, G. E., ADAMS, K. J., ALRICK, K. R., AMANN, J. F., BOISSEVAIN, J. G., CROW, M. L., CUSHING, S. B., EDDLEMAN, J. C., ESPINOZA, C. J., FIFE, T. T., GALLEGOS, R. A., GOMEZ, J. J., GORMAN, T. J., GRAY, N. T., HOLMES, V. H., JARAMILLO, S. A., KING, N. S. P., KNUDSON, J. N., LONDON, R. K., LOPEZ, R. P., MCCLELLAND, J. B., MERRILL, F. E., MORLEY, K. B., MORRIS, C. L., MOTTERSHEAD, C. T., MUELLER, K. H., NERI, F., NUMKENA, D. M., O'DONNELL, J. M., PAZUCHANICS, P. D., PILLAI, C., PRAEL, R. E., RIEDEL, C. M., SARRACINO, J. S., SAUNDERS, A., STACY, H. L., TAKALA, B. E., THIESSEN, H. A., TUCKER, H. E., WALSTROM, P. L., YATES, G. J., ZIOCK, H.-J., ZUMBRO, J. D., ABLES, E., AUFDERHEIDE, M. E., BIONTA, R. M., FUJINO, D. H., HARTOUNI, E. P., SOLTZ, R. A., WRIGHT, D. M., BALZER, S. J., FLORES, P. A., THOMPSON, R. T., PRIGL, R., SCADUTO, J., and SCHWANER, E. T., "Proton Radiography," in *Proceedings of the 1999 Particle Accelerator Conference* (IEEE, 1999) **1**, 579–583.
- KRUSIN-ELBAUM, L., BLATTER, G., THOMPSON, J. R., ULLMANN, J. L., and CHU, C. W., "Anisotropy-Enhanced Vortex Pinning by Randomly Splayed Extended Defects in High-T_c Superconductors," *Physica C* **335**, 144 (2000).
- LANGENBRUNNER, J., LILJESTRAND, R., COOPER, R. G., WHITESON, A., WATERS, L. S., QUINTANA, D. L., MORGAN, G. L., WOLOSHUN, K. A., HANSON, A., MADLENER, M., and TORRES, T., "Energy Deposition Measurement Using Calorimetric and Radiochromic Techniques," *Bulletin of the American Physical Society* **44** (1), 1520 (1999).
- MATSUDA, Y., BOWMAN, J. D., CRAWFORD, B. E., DELHEIJ, P. P. J., HASEYAMA, T., KNUDSON, J. N., LOWIE, L. Y., MASAIKE, A., MASUDA, Y., MITCHELL, G. E., PENTTILA, S. I., POSTMA, H., ROBERSON, N. R., SEESTROM, S. J., SHARAPOV, E. I., STEPHENSON, S. L., YEN, Y.-F., and YUAN, V. W., "Parity Violation in Neutron Resonances of Antimony and Iodine," *Physical Review C* **64**, 015501–015508 (2001).
- MATTHEWS, J. L. and SAFKAN, Y., "Differential Cross Section for Neutron-Proton Bremsstrahlung," in *Proceedings of the 10th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics* (AIP, 2000) **529**, 594–599.
- MATTHEWS, J. L., "Experimental Searches for Pre-Existing Delta Components in Nuclear Wave Functions," in *Proceedings of the 2nd Workshop on Electronuclear Physics with Internal Targets and the BLAST Detector* (World Scientific, 1999) 355.

Publications

MCDONALD, T. E., BRUN, T. O., CLAYTOR, T. N., FARNUM, E. H., GREENE, G. L., and MORRIS, C. L., "Time-Gated Energy-Selected Cold Neutron Radiography," *Nuclear Instruments and Methods in Physics Research A* **424**, 235–241 (1999).

MCGAUGHEY, P. L., MOSS, J. M., and PENG, J.-C., "High-Energy Hadron-Induced Dilepton Production from Nucleons and Nuclei," *Annual Review of Nuclear and Particle Science* **49**, 217–253 (1999).

MITCHELL, G. E., BOWMAN, J. D., CRAWFORD, B. E., DELHEIJ, P. P. J., GROSSMANN, C. A., HASEYAMA, T., KNUDSON, J. N., LOWIE, L. Y., MASAIKE, A., MATSUDA, Y., PENTTILA, S. I., POSTMA, H., ROBERSON, N. R., SEESTROM, S. J., SHARAPOV, E. I., SMITH, D. A., STEPHENSON, S. L., YEN, Y.-F., and YUAN, V. W., "PCN Experiments in Heavy Nuclei," in *Proceedings of the Fundamental Physics with Pulsed Neutron Beams* (World Scientific, 2001) 108.

MITCHELL, G. E., BOWMAN, J. D., PENTTILA, S. I., and SHARAPOV, E. I., "Parity Violation in Compound Nuclei: Experimental Methods and Recent Results," *Physics Reports* **354**, 157–241 (2001).

NELSON, R. O., CHADWICK, M. B., MICHAUDON, A. F., and YOUNG, P. G., "High-Resolution Measurements and Calculations of Photon-Production Cross Sections for $^{16}\text{O}(\text{n},\text{x}\gamma)$ Reactions Induced by Neutrons with Energies Between 4 and 200 MeV," *Nuclear Science and Engineering* **138** (2), 105–144 (2001).

OSSANDON, J. G., THOMPSON, J. R., KRUSIN-ELBAUM, L., KIM, H. J., CHRISTEN, D. K., SONG, K. J., and ULLMANN, J. L., "Influence of Randomly Oriented Columnar Defects on the Irreversible and Reversible Magnetization of $\text{Tl}_2\text{Ba}_2\text{CaCu}_2\text{O}_x$ Superconductor," *Superconductor Science and Technology* **14**, 666 (2001).

POSTMA, H., BOWMAN, J. D., CORVI, F., CRAWFORD, B. E., DELHEIJ, P. P. J., FRANKLE, C. M., GROSSMANN, C. A., GUNSING, F., HASEYAMA, T., KNUDSON, J. N., LOWIE, L. Y., MASAIKE, A., MATSUDA, Y., MITCHELL, G. E., PENTTILA, S. I., ROBERSON, N. R., SEESTROM, S. J., SHARAPOV, E. I., SMITH, D. A., STEPHENSON, S. L., YEN, Y.-F., YUAN, V. W., and ZANINI, L., "Parity Violation at Neutron Resonances and Related Neutron Spectroscopy Experiments," *Czechoslovak Journal of Physics* **51A**, 289–298 (2001).

PRIPISTEIN, M., GIDAL, G., LUK, K., ISENOWER, L. D., SADLER, M. E., SCHNATHORST, R., LEDERMAN, L. M., BROWN, C. N., COOPER, W. E., GOUNDER, K., MISHRA, C., CAREY, T. A., JEPPESEN, R., KAPUSTINSKY, J. S., LANE, D. W., LEITCH, M. J., LILLBERG, J. W., MCGAUGHEY, P. L., MOSS, J. M., PENG, J.-C., KAPLAN, D. M., WILSON, J. R., KIANG, G. C., and TENG, P., "Search for the Flavor-Changing Neutral Currents and Lepton-Family-Number Violation in Two-Body D^0 Decays," *Physical Review D* **61**, 032005/1–17 (2000).

SATOH, S., TOSAKA, Y., and ITAKURA, T., "Scaling Law for Secondary Cosmic-Ray Neutron-Induced Soft-Errors in DRAMS," in *Proceedings of the 1998 International Conference on Solid-State Devices and Materials, Technical Digest* **41** (1998).

SCHREWE, U. J., DELUCA, P. M., BREDE, J. H., and NEWHAUSER, W. D., "Experimental Kerma Coefficients and Dose Distributions of C, N, O, Mg, Al, Si, Fe, Zr, A-150 Plastic, Al_2O_3 , AlN, SiO_2 and ZrO_2 for Neutron Energies Up to 66 MeV," *Physics in Medicine and Biology* **45** (3), 651–683 (2000).

SHARAPOV, E. I., BOWMAN, J. D., CRAWFORD, B. E., DELHEIJ, P. P. J., FRANKLE, C. M., IINUMA, M., KNUDSON, J. N., LOWIE, L. Y., MASAIKE, A., MATSUDA, Y., MITCHELL, G. E., PENTTILA, S. I., POSTMA, H., ROBERSON, N. R., SEESTROM, S. J., STEPHENSON, S. L., YEN, Y.-F., and YUAN, V. W., "Parity Violation in ^{232}Th p-wave Resonances with Energies From 8.4 eV to 2000 eV," in *Proceedings of the VIII International Seminar on Interaction of Neutrons with Nuclei* (JINR, 2000) 86.

SHEN, B. C., "High-Energy Gamma-Ray Astroparticle Physics with Milagro," in *Proceedings of the 27th International Symposium on Multiparticle Dynamics*, Capon, G., Khoze, V. A., Pancheri, G., and Sansoni, A., Eds., *Nuclear Physics B* **71** (Proceedings Supplement), 470–477 (1999).

SMITH, D. A., BOWMAN, J. D., CRAWFORD, B. E., GROSSMANN, C. A., HASEYAMA, T., JOHNSON, M. B., MASAIKE, A., MATSUDA, Y., MITCHELL, G. E., NAZARENKO, V., PENTTILA, S. I., ROBERSON, N. R., SEESTROM, S. J., SHARAPOV, E. I., SMOTRITSKY, L. M., STEPHENSON, S. L., TOMSOVIC, S. L., and YUAN, V. W., "Parity Violation in Neutron Resonances of ^{117}Sn ," *Physical Review C* **64**, 015502 (2001).

- SNOW, W. M., BLESSINGER, C. S., HANSEN, G. L., NANN, H., RICH, D. R., SHARPOV, E. I., ISHIMOTO, S., MASUDA, Y., MORIMOTO, K., BOWMAN, J. D., GREENE, G. L., HOGAN, G. E., KNUDSON, J. N., LAMOREAUX, S. K., MORGAN, G. L., PENTTILA, S. I., SMITH, T. B., WILBURN, W. S., YUAN, V. W., GENTILE, T. R., JONES, G. L., WIETFELDT, F. E., FREEDMAN, S. J., FUJIKAWA, B. K., PAGE, S., CHUPP, T. E., COULTER, K. P., and LEUSCHNER, M. B., "Measurement of the Parity-Violating Asymmetry A_γ in $n+p \rightarrow d+\gamma$," in *Proceedings of the Fundamental Physics with Pulsed Neutron Beams* (World Scientific, 2001) 203.
- TAVUKCU, E., BERNSTEIN, L. A., HAUSCHILD, K., BECKER, J. A., GARRETT, P. E., MCGRATH, C., MCNABB, P. D., YOUNES, W., CHADWICK, M. B., NELSON, R. O., JOHNS, G. D., and MITCHELL, G. E., " ^{196}Pt (n, xn) $y p \gamma$ Reactions Using Spallation Neutrons from $E_n = 1$ to 250 MeV," *Bulletin of the American Physical Society* **46** (2), 131 (2001).
- TAVUKCU, E., BERNSTEIN, L. A., HAUSCHILD, K., BECKER, J. A., GARRETT, P. E., MCGRATH, C., MCNABB, P. D., YOUNES, W., CHADWICK, M. B., NELSON, R. O., JOHNS, G. D., and MITCHELL, G. E., " ^{196}Pt (n, xn) $y p \gamma$ Reactions Using Spallation Neutrons from $E_n = 1$ to 250 MeV," *Physical Review C* **64** (5), 054614/1-9 (2001).
- THOMPSON, J. R., OSSANDON, J. G., KRUSIN-ELBAUM, L., SONG, K. J., CHRISTEN, D. K., and ULLMANN, J. L., "Quantum Tunneling of Vortices in Bi-2212 with Randomly Oriented Columnar Defects," *Physica B* **284-288**, 877 (2000).
- TOMSOVIC, S. L., JOHNSON, M. B., HAYES-STER-BENZ, A. C., and BOWMAN, J. D., "Statistical Theory of Parity Nonconservation in Compound Nuclei," *Physical Review C* **62**, 054607-054624 (2000).
- TSAI, C.-C. , ALLISON, S. W., ANDRIULLI, J., CATES, M. R., EARL, D. D., HAINES, J. R., MORRISEY, F. X., and WENDER, S. A., "Dynamic Strain on Thin Diaphragms of a Mercury Target During 800-MeV Proton Thermal Shock Tests," in *Proceedings of the 3rd International Topical Meeting on Nuclear Applications of Accelerator Technology* (AIP, 1999) 437-444.
- TSAI, C.-C. , ANDRIULLI, J., ALLISON, S. W., CATES, M. R., EARL, D. D., and HAINES, J. R., "Dynamic Strain and Pressure Measurements of a Mercury Target Under Thermal Shock Tests," *Transactions of the American Nuclear Society* **80**, 313 (1999).
- YATES, S. W., BROWN, T., HANNANT, C., VANHOY, J. R., and WARR, N. V., "Using ($n, xn \gamma$) Reactions to Probe Nuclear Structure," *Heavy Ion Physics* **12**, 295-298 (2000).
- YATES, S. W., WARR, N. V., BROWN, T., GARRETT, P. E., and STRANO, M., "An Unsuppressed Array for Gamma-Ray Coincidence Measurements Following Neutron-Induced Reactions," *Transactions of the American Nuclear Society* **81**, 110-111 (1999).
- YOUNES, W., BECKER, J. A., BERNSTEIN, L. A., GARRETT, P. E., MCGRATH, C., MCNABB, P. D., JOHNS, G. D., NELSON, R. O., and WILBURN, W. S., "Nuclear Science at GEANIE," in *Proceedings of the 10th International Capture Gamma-Ray Spectroscopy and Related Topics Conference* (AIP, 2000) **529**, 192.
- YOUNES, W., BECKER, J. A., BERNSTEIN, L. A., GARRETT, P. E., MCGRATH, C., MCNABB, P. D., NELSON, R. O., JOHNS, G. D., WILBURN, W. S., and DRAKE, D. M., "Population of the T-1/2=25-Minute Isomer in U-235 Via the (n, N') Reaction," *Abstracts of Papers of the American Chemical Society* **222** (2), U26-U26 (2001).
- YOUNES, W., BECKER, J. A., BERNSTEIN, L. A., GARRETT, P. E., MCGRATH, C., MCNABB, P. D., NELSON, R. O., WILBURN, W. S., and DRAKE, D. M., "Neutron-Induced Fission Yields Following the U-235(n, f) Reaction," *Abstracts of Papers of the American Chemical Society* **222** (2), U26-U26 (2001).
- ZHAO, Q. H., BURLESON, G. R., BLANCHARD, S., CHANG, T-H., GIBBS, W., PARK, B. K., ESPY, M. A., DEHNHARD, D. K., LARSON, B. C., O'DONNELL, J. M., PALARCZYK, M., CUMMINGS, W., HAUSSER, O. F., PASYUK, E. A., AMANN, J. F., BOUDRIE, R. L., RIEDEL, C. M., MORRIS, C. L., PENTTILA, S. I., COMFORT, J. R., GAULARD, C. V., GLASS, G., and SUPEK, I., "Measurements of Asymmetries of Pion Single-Charge Exchange on Polarized ^3He at 200 MeV," *Physical Review C* **60**, 02400-1 (1999).

Theses

- LIGHT, M. E.**, "A Study of Low-Frequency Instability and Transport in a Helicon Plasma," University of California at Los Angeles, USA (December 2000).
- MANLEY, M. E.**, "From Elementary Excitations to Microstructures: The Thermodynamics of Metals and Alloys Across Length Scales," California Institute of Technology, USA (2001).
- SAFKAN, Y.**, "Neutron-Proton Bremsstrahlung," Massachusetts Institute of Technology, USA (February 2001).